

### REMARKS

Applicant hereby wishes to thank the Examiner for the detailed remarks. Claim 1 has been amended. Claims 7 and 23 have been cancelled. New claims 32-36 are presented. Claims 8, 9, 13, 19, and 27-30 remain withdrawn. Accordingly, claims 1, 2, 4, 5, and 31-36 are pending.

#### 35 U.S.C. §112

Applicant respectfully submits that the amended claims are properly allowable under 35 U.S.C. §112. The Examiner seems to have suggested that Applicant's "controller" and "motor" terms refer to the same thing:

(a) A confusing variety of terms, such as, "a controller" and "a motor" in claim 1 refer to the same or different things. As noted, paragraph [0026] of the specification describes: "[t]he processor 28 generates output signals to operate *a power source 30 such as an electric motor, air motor, hydraulic motor, turbine or the like. The power source 30 operates to control the phase and magnitude characteristics of the force generator(s) 24 in response to the processor 28.*" (Emphasis added). Therefore, the controller and the motor are apparently the same thing, *i.e.*, the power source 30. See double inclusion in MPEP § 2173.05(e). Assuming *arguendo* that the controller and the motor are different, Applicant is respectfully suggested to identify each claimed element with reference to the drawings; and

Applicant's amended claims specifically clarify any such suggestion. Irrespective of the "controller" or "processor" terminology, such an element is simply not a motor or power source as recited and claimed by Applicant. Applicant respectfully submits that the processor element and power source element are different and cannot be properly interpreted as the same element in either Applicant's originally presented claim or Applicant's amended claim as apparently asserted by the Examiner.

**35 U.S.C. §103**

Claims 1, 2, 4, 5, 7, 23, and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Kanski* (2309172) in view of *Fink* (6776580). Applicant respectfully traverses these rejections as there is absolutely no teaching, suggestion, or motivation to modify *Kanski* in view of *Fink* as proposed.

Initially, the Examiner asserts:

On the one hand, *Kanski's* motor is inherently in communication with the controller to drive the crank to control a phase and magnitude of the vibratory inertial force to compensate for an externally generated vibratory force sensed by the sensor system because the motor and the controller of *Kanski* are the power source similarly to Applicant's motor and controller. On the other hand, the controller is notoriously well known as admitted by Applicant (Spec. 1: ¶ 3).

In summary, *Kanski* teaches the invention as claimed except the sensor.

Initially, Applicant describes and claims a processor which is completely different from the generic motive force motor provided by *Kanski*. Applicant's processor, controls the power source to drive the cranks such that a phase in magnitude of the vibratory inertial force is continuously varied to compensate for an externally generated vibratory force. That is, Applicant's processor operates to reduce vibration while the *Kanski* motor operates only to generate vibration. There is no disclosure whatsoever within *Kanski* which suggests otherwise.

Nonetheless, the Examiner asserts that *Kanski* teaches the invention as claimed except the sensor. Initially, *Kanski* is directed to the generation of vibration for vibrating machines such as screens, separating tables, conveyors, etc.

This invention relates to processing vibrating machines, such as screens, separating tables, conveyors and similar machines. Generally defined, the object of the present invention is to propose a simple apparatus by means of which it is possible to obtain a complex vibratory motion, substantially a combination of a simple gyratory vibration with a vibration produced by a mass center provided with a planetary motion.

[*Kanski*, Col. 1, lines 1-9]

Notably, *Kanski* is directed to the separation of bulk materials:

The importance of application of vibration methods to the treatment of granular materials is well known. These methods are mainly applied for such operations as sizing, scalping and similar operations usually defined by screening. Another important application of these methods relates to the separation of bulk materials composed of particles having different physical properties such as specific gravity, surface characteristics, shape of the particles, etc.

[Kanski, Col. 2, lines 31-40]

*Kanski* makes no reference whatsoever to a sensor or control system.

*Fink*, in contrast, is directed to a variable edge rotor blade 28 with a movable edge section 32.

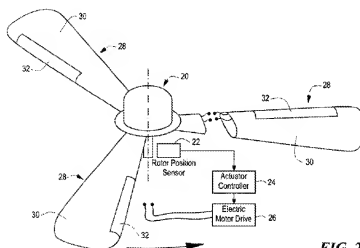


FIG. 2

*Fink* controls the movable edge section 32 to, in part, limit vibration in, for example, nap-of-the-earth (NOE) flight - - not to **generate** vibration as does *Kanski*.

That is, *Fink* desires to reduce vibration and *Kanski* desires to generate vibration. Not only does *Fink* fail to generate vibration, the entire operational principle of *Fink* is the control of the movable edge section 32 relative to the airfoil section 30. Reduced vibration may be one desired outcome of *Fink*, however, reduced fuel consumption, higher cruise speeds, and improved component life (see Col. 2, lines 9-12) are also objectives of the aerodynamic operation principle of *Fink*. One of ordinary skill in the vibrating processing machine art that separates bulk materials simply would not look to a variable edge rotor blade for a sensor system as proposed by the Examiner.

There is simply no motivation to combine *Kanski* with *Fink* as proposed. The only motivation to make the combination as proposed is by following the knowledge disclosed within Applicant's present invention. This is impermissible usage of hindsight in an attempt to recreate Applicant's device.

New claims 32-36 recite further features of the present invention which are neither disclosed nor suggested by the cited references and are thus properly allowable. Applicant respectfully submits that new claims 32-36 are readable upon the elected species of Figure 2B, subgroup 1, and thus may be properly examined.

Applicant believes that no additional fees are required; however, should any fees or extensions of time be required, the Commissioner is authorized to charge Deposit Account No. 19-2189.

Applicant respectfully submits that this case is in condition for allowance. If the Examiner believes that a teleconference will facilitate moving this case forward to being issued, Applicant's representative can be contacted at the number indicated below.

Respectfully Submitted,

**CARLSON, GASKEY & OLDS, P.C.**

/David L. Wisz/  
DAVID L. WISZ  
Registration No. 46,350  
400 West Maple, Suite 350  
Birmingham, Michigan 48009  
(248) 988-8360

Dated: October 29, 2009

NA\Clients\SIKORSKY\IP00076\PATENT\Helo-076\_Amendment\_7-9-2009.doc